

TONER PARTICLES AND METHOD AND SYSTEM FOR THE PRODUCTION THEREOF

ABSTRACT

The invention relates to a toner powder wherein the individual toner particles of the toner powder contain colorants incorporated into at least one polymer, in particular, pigments. The initial product of the polymer consists of a liquid phase based on a monomer and/or oligomer. Subsequently, the colorants, in particular pigments, are dispersed in said liquid phase. Fine drops having a predetermined drop size are produced from the dispersion. A polymerization reaction of the monomers and/or the oligomers in order to form the polymer is then provoked in the individual drops by exposing the drops to electromagnetic waves or electrons, whereby the polymerized drops form the toner particles of the toner powder. The invention also relates to a system for the production of toner powder in addition to toner powder itself. In an another embodiment, the invention relates to a method for the production of toner powder, wherein the individual toner particles thereof comprise at least one colorant incorporated into at least one polymer and said method comprises the following steps: The initial product of the polymer consists of a liquid phase based on at least one monomer and/or oligomer; the at least one colorant is dispersed in said liquid phase and the dispersion is applied to a surface and is hardened thereon by means of polymerization of the monomers and/or oligomers. Subsequently, the product obtained according to said method is removed from the surface and comminuted, in particular, ground. The invention enables the desired toner particle size of toner powder to be adjusted in a precise manner with a minimum amount of technical and economical expenditure.

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